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**DATA SHEET:**  
**C363 C36300**

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**HOT FORGING**

The logo for HUG, featuring the word "HUG" in a bold, white, sans-serif font, enclosed within a white circular border.

**HUG**

**Antidezincifying alloy with low lead content and without arsenic.**

Excellent antidezincificant alloy without arsenic. Excellent for hot stamping and sufficient machinability for chip removal.

## NAME OF ALLOY

ASTM: C36300

NORMATIVE: B981/B981M

## CHEMICAL COMPOSITION ASTM

Cu	Pb	Fe	P	Zn	Other elements
min. 61.0 max. 63.0 %	0.25 0.70 %	≤0.15 %	0.04 0.15 %	difference	≤0.2 %

Cu + sum of the named elements 99.5% minimum.

## HEAT TREATMENTS

### STRESS RELIEVING

Enables the redistribution of tensions induced by mechanical processing or cold plastic deformation reducing the risk of stress corrosion cracking.

The treatment consists of heating the items to 200°C - 250°C for 2 hours and cooling within the furnace.

The validation of the stress relieving treatment can be performed with the ISO 6957 test.

### SOLUBILIZATION OF RESIDUAL β PHASE

To improve the corrosion resistance of the alloy a thermal treatment between 500°C and 550°C for 2 hours with cooling outside the furnace is required. This treatment after hot stamping enhances the solubilization of the residual beta phase to grant material resistant to dezincification.

The omission of this treatment impairs the anti-dezincification performance that the material is designed for.

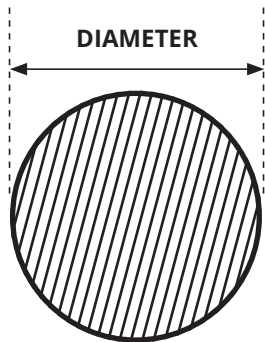
## TECHNOLOGICAL PROPERTIES

low excellent

Structure	α	Machinability	
Density	8.4 kg/cm <sup>2</sup>	Weldability	
Electrical conductivity	26% IACS	Hot forming	
Coeff. of thermal expansion	20.3 10 <sup>-6</sup> /K	Cold forming	
Thermal conductivity*	120 W/(m K)	Corrosion resistance**	<200 μm
Specific heat	382 J/(kg K)		
Elasticity module	110 kN/mm <sup>2</sup>		
Melting point	890-900 °C		

\*at room temperature

\*\*use care to ascertain compatibility with chemical substances



## MECHANICAL PROPERTIES ASTM

Condition of material	Diameter in mm		Hardness HB	
	from	to (included)	min.	max
M	All		As a product	

Any special hardness values must be defined when ordering

Rm N/mm <sup>2</sup>	Rp <sub>0.2</sub> N/mm <sup>2</sup>	A%
400-450*	290-340*	20-30*

\* The values shown are not regulated and are only indicative.

## DIMENSIONS, TOLERANCES, AND STRAIGHTNESS

Nominal diameter (mm)		TOLERANCES		Diameter mm		Length of bar	Tolerance mm
		Class A	Class B				
10	18	+/- 0.25	+/- 0.14	10	30	3.0 - 5.0	+/- 100
18	30	+/- 0.30	+/- 0.17	30	50	3.0 - 5.0	+/- 200
30	50	+/- 0.60	+/- 0.20	50	80	3.0	+/- 300
50	80	+/- 0.70	+/- 0.37				
80	120	+/- 2					

The standard "Extruded calibrated" product is produced in Class B up to and including Ø80 mm  
Semi-finished products over Ø45 mm can be supplied in the "pressed" and "rolled" forms with Class A tolerance

Diameter (mm)		Deviation from straightness in mm	
		Every 400 mm	Every m of length L ≥ 1
10	60	1.5	3.0 x L

## BAR FINISHING AND PACKAGING

<b>Bar ends</b>	finishing with saw cut and chamfer
<b>Bar surface</b>	not pickled
<b>Packaging</b>	1000 kg bundle - 3/5 metal straps different bundle packagings and quantities are possible upon request
<b>Identification</b>	adhesive label on bundle strap

COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =  
= ISO 14001 =  
= OHSAS 18001 =



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